

Abstract

Stented tubular grafts of expanded, sintered polytetrafluoroethylene (PTFE). The stented PTFE grafts of the present invention include an integrally stented embodiment, an externally stented embodiment, and an internally stented embodiment. In each embodiment, the stent may be either self-expanding or pressure-expandable. Further, the stent may comprise a plurality of elements, wherein each said element comprises an undulating linear shape formed into a generally cylindrical configuration, and wherein each said element is connected to an adjacent neighbor element by at least one linear connector. Also, in each embodiment, the stent may be coated or covered with a plastic material capable of being affixed (e.g., heat fused) to PTFE. Manufacturing methods are also disclosed by the individual components of the stented grafts are preassembled on a mandrel and are subsequently heated to facilitate attachment of the PTFE layer(s) to one another and/or to the stent. A method for the treatment of cardiovascular disease by implantation of the stented graft, and an article of manufacture, comprising packaging material and the stented graft are also taught.